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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/835,400	04/17/2001	George Hamilton Harvey	PMC-002	5160

7590 05/02/2008  
Carl Benson  
GOODWIN PROCTER LLP  
901 New York Avenue, NW  
Washington, DC 20001

EXAMINER
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SPOONER, LAMONT M

ART UNIT	PAPER NUMBER
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2626

MAIL DATE	DELIVERY MODE
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05/02/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/835,400	<b>Applicant(s)</b> HARVEY ET AL.	
	<b>Examiner</b> LAMONT M. SPOONER	<b>Art Unit</b> 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 14-17 and 29-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 29-35 and 42-46 is/are allowed.
- 6) ☒ Claim(s) 14-17 and 36-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Introduction***

1. This office action is in response to applicant's amendment filed 1/30/08. Claims 14-17, and 29-46 are currently pending and have been examined.

### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 14-17, and 36-41 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. More specifically, claim 14, recites "a machine readable medium on which is stored a data structure including a plurality of fields, each of the fields filled with a readable value;

a plurality of roots, each root including a most significant field filled with a readable value designating a general abstract concept and a field of lesser significance filled with a readable value designating a narrower concept within the general abstract concept designated within the most significant field, whereby each root designates a concept indicated by the value of each field included in the root; and

a word including the plurality of roots, each concept designated by each root of the plurality of roots designating a different characteristic of the word." However, the claimed data structure lacks a physical or logical relationship among the data elements (see MPEP 2106.01). Thus, the claim does not meet the requirements for computer-related statutory subject matter, wherein the function descriptive material is unable to impart any functionality wherein the claimed data structure does not include a physical or logical relationship among the data elements.

As per claim 36, claim 36 falls within a statutory class (i.e. process), and furthermore is directed to a judicial exception (i.e. an abstract idea), wherein the entire claim is directed towards abstract ideas and concepts. While abstract ideas are not eligible for patenting, methods employing abstract ideas to perform a real-world function may well be (see MPEP 2106). For claims including such excluded subject matter to be eligible for patent protection, the claim must be for a practical application of the abstract idea (ibid). A claimed invention is directed to a practical application of 35 USC 101 judicial exception when it:

(A) "transforms" an article or physical object to a different state or thing (found to be absent in the claim); or

(B) otherwise produces a useful, concrete and tangible result (the claimed end production is a **“represented root with a plurality of fields.”**)

It is imperative to note the focus is not on whether the steps taken to achieve a particular result are useful, tangible, and concrete, but rather on whether the final result achieved by the claimed invention is "useful, tangible, and concrete.")

***Allowable Subject Matter***

4. Claims 29-35, and 42-46 are allowed.
5. The following is a statement of reasons for the indication of allowable subject matter:

The above claims are deemed to be directed to a nonobvious improvement over the invention patented in Ausborn (US 5,056,021). Regarding claim 29, the improvement comprising representing **each root** of a set of roots with **a value** based on a definitional tree-type structure, **each root including a plurality of common fields** representing levels of the tree-type structure, **each specific field** included in a specific root having **a value** corresponding to the **meaning of the specific root** at a level of the tree-type structure represented by the specific field; representing **a data concept by grouping a plurality of roots** selected

from the set of roots **to form a word**, **each root** of the plurality of roots **corresponding to a characteristic of the data concept** represented by the word; and storing the word.

As per claim 42, the improvement comprising forming a tree-type taxonomy for word roots, the upper level of the taxonomy divided into a plurality of classes, each class divided into a plurality of subclasses at a lower level of the taxonomy, **each level of the taxonomy represented by a field in each word root**; **combining a plurality of the word roots to form a word**, **each word root forming the word representing a characteristic of the word**; and storing the word.

6. The dependent claims, 30-35, and 43-46 are allowed, as their parent claims have been deemed allowable.

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAMONT M. SPOONER whose telephone number is (571)272-7613. The examiner can normally be reached on 8:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on 571/272-7603.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

lms  
4/25/08

/Patrick N. Edouard/  
Supervisory Patent Examiner, Art Unit 2626